

Appl. No. 10/632,669
Response Dated November 30, 2004
Reply to Office action dated September 1, 2004

REMARKS/ARGUMENTS

Applicants have received and carefully reviewed the Office Action of the Examiner mailed September 1, 2004. New claims 23-25 have been added. Support for the new claims is found in the specification as originally filed at, for example, page 8, lines 10-12, and page 9, lines 15-17. No new matter has been added. Claims 1-25 are pending. Reconsideration and reexamination are respectfully requested.

Rejection under 35 U.S.C. § 102(b)

Claims 1, 2, 8, 14, 18-20, and 22 are rejected as being clearly anticipated by Japanese patent 297660 ('660). Applicants traverse the rejection.

The Examiner asserts that the above claims are clearly anticipated by the Japanese patent, however only the Abstract is in English. There are figures, but the description of the figures and reference numbers are in Japanese. Applicant submits that based on only the English abstract and Figures, the Japanese reference does not appear to teach a stepper motor directly coupled to the vane, as is recited in independent claims 1, 14, 18, and 22. The abstract of the Japanese reference states a throttle valve 1 is provided on valve shaft 3, and that a stepper motor 7 is coupled with the valve shaft 3. However, it appears that reference number 7 in Figure 1 is pointing to an element in the upper right corner of the device. At best it cannot be determined from the cross-section shown in Figure 1 whether the stepper motor 7 has a rotation axis that is in the vertical direction or the horizontal direction. It also is unclear how the stepper motor 7 is coupled to the valve shaft 3. There simply is not enough detail provided. Thus, based only on the abstract and Figure, Applicants submit that the Japanese reference cannot be seen to clearly anticipate the instantly claimed invention, which recites a stepper motor directly coupled to a vane.

Additionally, the instant specification states that, "[t]he term 'directly coupled' is used herein to mean that no intermediate gears are provided between a shaft...of the stepper motor 220 and the vane 230 so that the vane 230 and the shaft 225 rotate at substantially the same rate of rotation." See page 6, lines 21-24. Again looking at Figure 1 in the Japanese reference, it appears that there may be intermediate gears between element 3 and element 7. Applicants submit that at best, it is unclear, based only on the English abstract and Figure, how the stepper

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motor 7 and shaft 3 of the Japanese patent are coupled.

Claims 2 and 20 recite a microcontroller coupled to the stepper motor. The English abstract and Figures of the Japanese patent do not appear to teach a microcontroller coupled to the stepper motor. Claim 8 recites a frame including two longitudinal portions extending generally parallel to one another and two end portions coupled at opposite ends of the longitudinal portions and extending parallel to one another, and wherein one of the end portions defines a hole through which a portion of a shaft of the stepper motor extends, the portion of the shaft being directly coupled by a hub to the vane. The English abstract and Figures of the Japanese patent do not appear to teach or suggest the elements recited in claim 8. Additionally, the Japanese patent does not appear to teach the elements recited in independent claim 14.

Independent claim 18 recites a method involving specific method steps including the step of "causing the stepper motor to move a portion of the plurality of steps in a first direction to thereby move the vane from the first position to the second position." The English abstract of the Japanese patent does not appear to teach or suggest a step of causing the stepper motor to move a portion of the plurality of steps. The English abstract of the Japanese patent merely states that a motor is provided "for driving the throttle valve 1 from a fully open position to a fully closed position." Thus, at best, it is unclear what method steps are disclosed in the Japanese patent, based only on the English abstract.

MPEP 706.02 states:

Citation of and reliance upon an abstract without citation of and reliance upon the underlying scientific document is generally inappropriate where both the abstract and the underlying document are prior art. See *Ex parte Jones*, 62 USPQ2d 1206, 1208 (Bd. Pat. App. & Inter. 2001) (unpublished). To determine whether both the abstract and the underlying document are prior art, a copy of the underlying document must be obtained and analyzed. If the document is in a language other than English and the examiner seeks to rely on that document, a translation must be obtained so that the record is clear as to the precise facts the examiner is relying upon in support of the rejection. The record must also be clear as to whether the examiner is relying upon the abstract or the full text document to support a rejection... In limited circumstances, it may be appropriate for the examiner to make a rejection in a non-final Office action based in whole or in part on the abstract only without relying on the full text document. In such circumstances, the full text document and a translation (if not in English) may be supplied in the next Office action.

(emphasis added). The Examiner asserts that the above claims are rejected as being clearly

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anticipated by the Japanese patent. Thus, it appears the Examiner is relying on the entire document. Alternatively, the Examiner may be relying only on the English abstract and Figures. In either situation, an English translation of the entire Japanese patent is needed in order to determine the scope of the Japanese disclosure.

For the reasons set forth above, the English abstract of the Japanese patent alone does not appear to teach each and every element of the claims. Withdrawal of the rejection is respectfully requested. If the rejection is maintained, Applicants request the Examiner provide a full translation of the Japanese patent so the specific teachings of the reference can be determined.

Rejection under 35 U.S.C. § 103

Claims 1, 2, 8, 13, 15, and 16 are rejected as being unpatentable over Parker et al. in view of Japanese patent '660. The Examiner asserts that Parker et al. teach every element of the claims except for the stepper motor being directly coupled to the vane. The Japanese patent '660 is asserted as teaching that it is known to couple a stepping motor directly to a valve, and the Examiner asserts that it would have been obvious for the stepper motor of Parker to be directly coupled to the damper in order to drive the damper from a fully open position to a fully closed position. Applicants respectfully traverse the rejection.

Parker et al. teach a stepper motor that, while apparently not directly coupled to a damper, functions to control the damper. See column 12, lines 35-37. Parker et al. thus already provides a means for driving the damper. Applicant submits that because Parker et al. provides a stepper motor for driving the damper, there is no motivation for modifying Parker's device to directly couple the stepper motor to the damper. It appears that no further advantage or features would be achieved by such a modification.

As stated above, the Japanese patent does not appear to teach or suggest directly coupling a damper vane to a stepper motor. Thus, even if one were to combine the teachings of Parker et al. and the Japanese patent, one would not achieve the claimed invention. As none of Parker et al., the Japanese patent, or a combination of the two references appears to teach or suggest each and every element of the claims, withdrawal of the rejection is respectfully requested.

Claims 3, 4, 9-12, 17, and 21 are rejected as being unpatentable over Parker et al. in view of the Japanese patent '660 as applied to claims 1, 2, 8, 13, 15, and 16, and further in view of Danby. Applicants traverse the rejection. Parker et al. and the Japanese patent '660 do not

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appear to teach the basic elements of the claims for the reasons set forth above. Danby does not provide what Parker et al. and the Japanese patent lack. Thus, for at least the reasons set forth above, the combination of Parker, et al., the Japanese patent, and Danby also fails to teach or suggest each and every element of the claims. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 5-7 are rejected as being unpatentable over Parker et al. in view of the Japanese patent as applied to claim 1, and further in view of McCabe. The Examiner asserts that a combination of Parker et al. and the Japanese patent discloses the claimed invention except for a shaft extending through a hole in the frame directly to the vane and a hub. McCabe is cited for teaching a damper with a shaft extending through the frame directly to the vane and a hub. Parker et al. and the Japanese patent fail to teach the basic features of the claims, as stated above. McCabe does not provide what Parker et al. and the Japanese patent lack. Additionally, there does not appear to be any motivation to combine the teachings of Parker et al., the Japanese patent, and McCabe. The Examiner asserts that it would have been obvious to modify Parker et al. and the Japanese patent with the teachings of McCabe in order to provide a well known means of actuating the vane. Parker et al. and the Japanese patent, however, each already disclose means of actuating the vanes in their devices. The Examiner has provided no reasoning for why one would have been motivated to change the device of Parker et al. and replace the existing means of actuating the vane with another means of actuating the vane. In the absence of a specific advantage or motivating factor, Applicants submit that one of ordinary skill in the art would have no reason to change the means of actuating the vane taught in Parker et al. with another means of actuating the vane. Withdrawal of the rejection is respectfully requested.

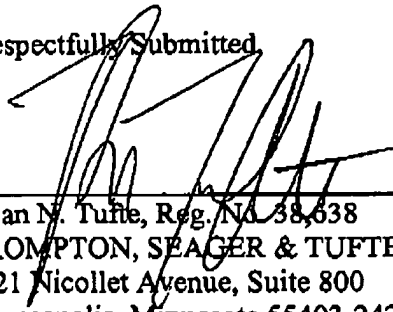
New claim 23 recites a damper for an air handling system in which a stepper motor moves the damper vane between a fully open position and a fully closed position. New claim 24 recites that the stepper motor drives the damper vane to the fully open position and to the fully closed position. New claim 25, which is dependent from claim 1, recites that the stepper motor drives the damper vane from a first position to a second position and from the second position to the first position. None of the cited references appears to teach or suggest the elements of new claims 23-25.

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Reconsideration and reexamination are respectfully requested. It is submitted that, in light of the above remarks, all pending claims 1-25 are now in condition for allowance. If a telephone interview would be of assistance, please contact the undersigned attorney at 612-677-9050.

Respectfully Submitted,

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